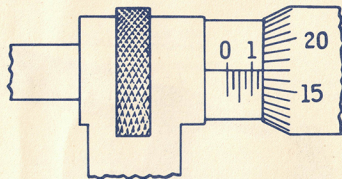


HOW TO READ A MICROMETER



As you will see by turning the thimble, it is made in one piece with the spindle which moves toward or away from the anvil by means of a screw within the barrel. This screw has 40 threads to the inch so the spindle during one complete revolution moves $1/40$ th of an inch or .025". Corresponding with these threads, the graduations on the barrel are 40 in number, and each space equals .025". Every four spaces is numbered 0, 1, 2, etc., representing tenths of an inch (0, .100", .200", etc.). The bevel edge of the thimble is graduated into 25 equal parts. When all 25 of these graduations have passed the horizontal line on the barrel, the spindle has made one revolution and has moved .025". Therefore, every time the spindle moves far enough to cause one graduation on the thimble to pass the horizontal line on the barrel, it will move $1/25$ th of .025", or .001".

To measure a work piece, insert it between the surfaces of the anvil and spindle and

turn the thimble until the spindle comes in contact with the piece being measured. As we have already noted, the barrel is divided into ten major sections, each representing one tenth of an inch (.100"), and each major section is sub-divided into four parts. Therefore, each division on the barrel represents 25 thousandths (.025) of an inch.

Now, (1), note the last figure (hundreds) visible on the barrel. Then, (2), count the number of graduations visible beyond the last figure, each of which represents 25 thousandths of an inch. Finally, (3), note the number of the division on the bevel of the thimble that coincides with the horizontal line on the barrel. The addition of these three figures will give you your final reading.

For example, as shown on opposite page

Highest figure shown on barrel is 1 which equals .100 of an inch	.100
Number of lines visible between the number 1 on the barrel and the thimble edge is one or .025 of an inch.....	.025
Number of lines on bevel of the thimble turned past horizontal line is seventeen	.017
Final Reading	.142

INSTRUCTIONS FOR ADJUSTING

1. Loosen set screw in end of cap and remove cap.
2. Clean faces of spindle and anvil, and screw together until they meet, if micrometer is 0-1" size, or until they contact the appropriate standard test gage, if micrometer is larger.
3. Loosen large end screw. This will relax tapered locking ring and permit the thimble to be moved in any direction.
4. Make zero line on thimble coincide with zero line on barrel.
5. Separate measuring faces by turning spindle at least two turns, without touching thimble.
6. Hold spindle firmly while turning end screw until locking ring exerts firm pressure on thimble. Then hold thimble and tighten end screw firmly. This will secure thimble at zero setting.
7. Recheck to make sure setting is correct.
8. Replace knurled cap and turn in set screw until it contacts end of spindle.

Meet CRAFTSMAN

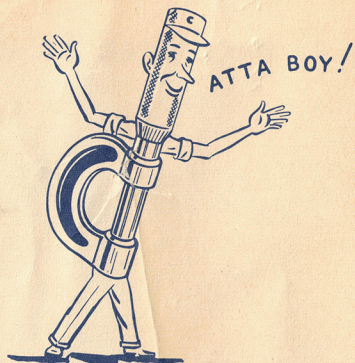
Mike

**TREAT HIM AS A
FRIEND AND HE
WILL GIVE YOU
LONG,
FAITHFUL
SERVICE**



YOUR micrometer is a precision measuring instrument and should be treated with the respect you give your watch or other fine mechanism. Learn how to use it properly and how to take care of it.

A few moments spent in reading this folder will pay real dividends in helping you know your micrometer — in making it your good loyal friend.



FIVE SIMPLE DO'S

- 1 Do keep me clean and well oiled.
- 2 Do keep me in a box or case when I'm not in use.
- 3 Do learn how to hold me.
- 4 Do learn how to read me.
- 5 Do expect me to be a reliable friend for many, many years.

FIVE IMPORTANT DO NOT'S

- 1 Do not drop, jam, or otherwise abuse me.
- 2 Do not stamp numbers or letters on my frame — etch them on.
- 3 Do not loan me — accidents happen with strangers.
- 4 Do not use me in grinding grit or let me get soaked with coolant.
- 5 Do not mistreat me and expect me to give accurate measurements.

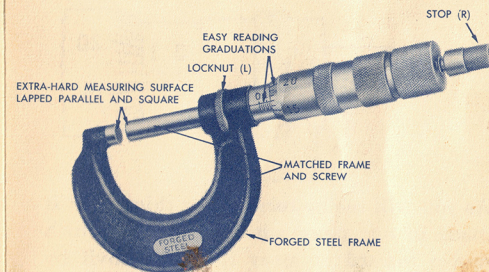
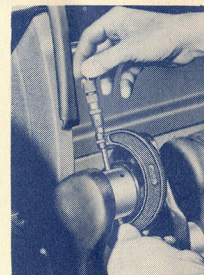
HOW TO USE A MICROMETER



HOLDING THE TOOL

In using the smaller sizes of micrometers for measuring work in the hands, hold the micrometer in the right hand so that the thumb and index finger rest on the knurled thimble, and the frame of the micrometer, supported by the little finger, rests against the base of the thumb. In this position the tool is secure and work may be readily inserted between the measuring surfaces using the free left hand.

In using larger micrometers, or when



the work is fixed, the micrometer is supported by its anvil end in the left hand while the right hand adjusts the thimble to determine the proper adjustment.

THE FRICTION STOP

This little device on the end of the thimble provides the same pressure for each measurement, eliminating any variation in the "touch" of the mechanic.

THE LOCKNUT

By turning the knurled ring in the frame, the spindle is securely locked and the reading preserved. A slight turn in the opposite direction immediately releases the spindle.